# Service Document
# **Exchange Set**

## GDP 2550 GMK3900, GMK3901
## GDP 2550/2 GMK3902

GRUNDIG

**Service Manual**

**Sicherheit Safety**

Materialnr./Part No. 720108000001

⚠ Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Materialnummer 720108000001, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!

⚠ The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 720108000001, as well as the respective national deviations.

Dieses Service Dokument ist nur in Datenform verfügbar
This Service Document is only available as data

Änderungen vorbehalten/Subject to alteration

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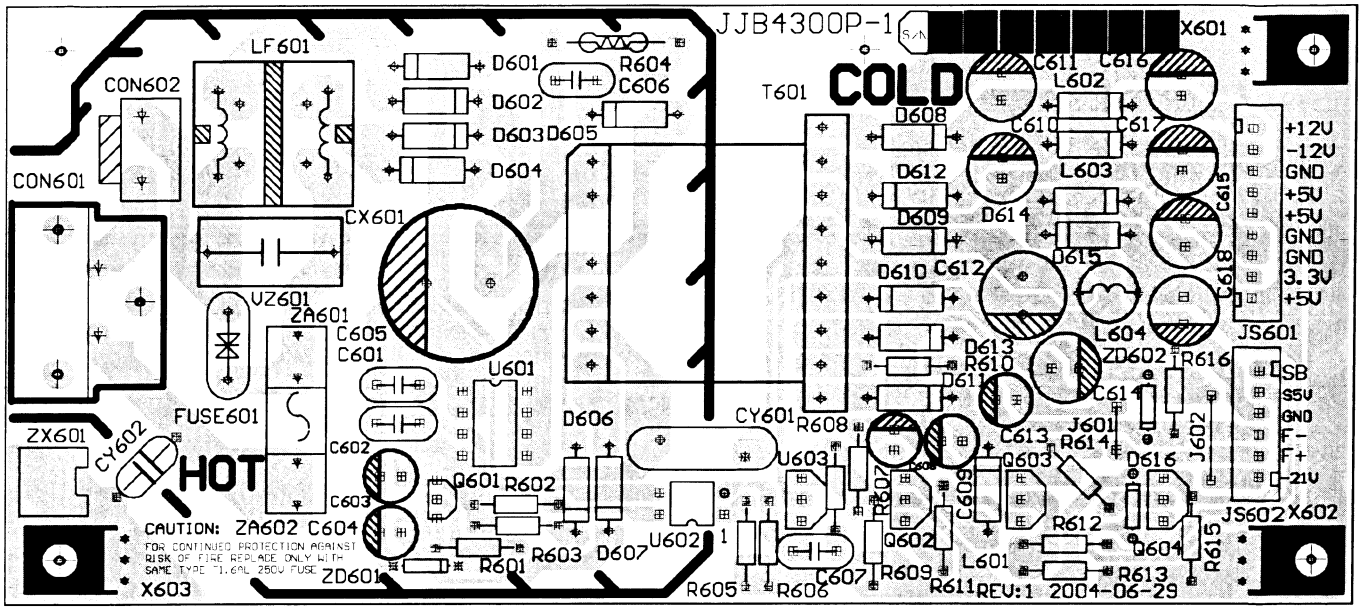
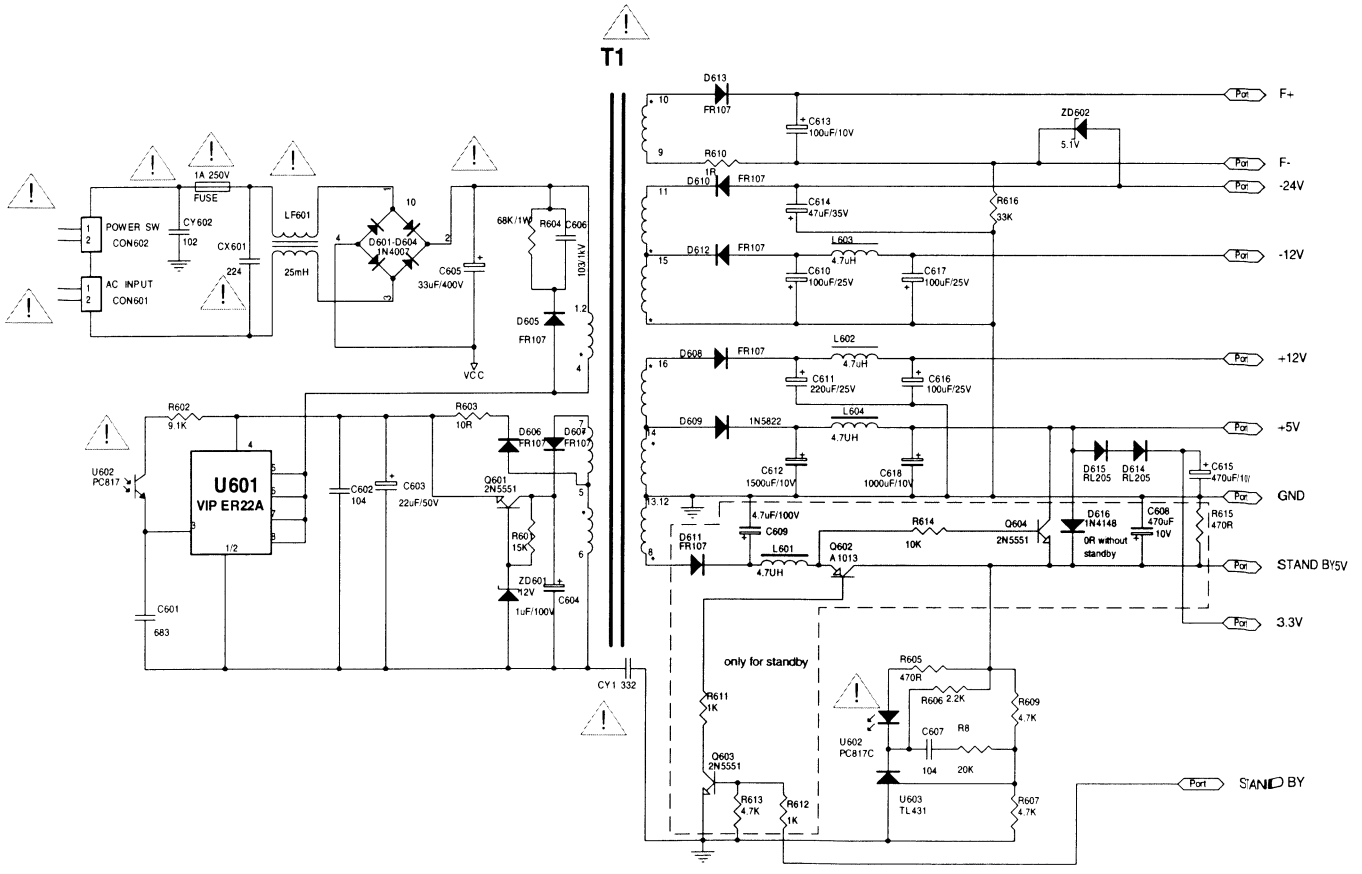
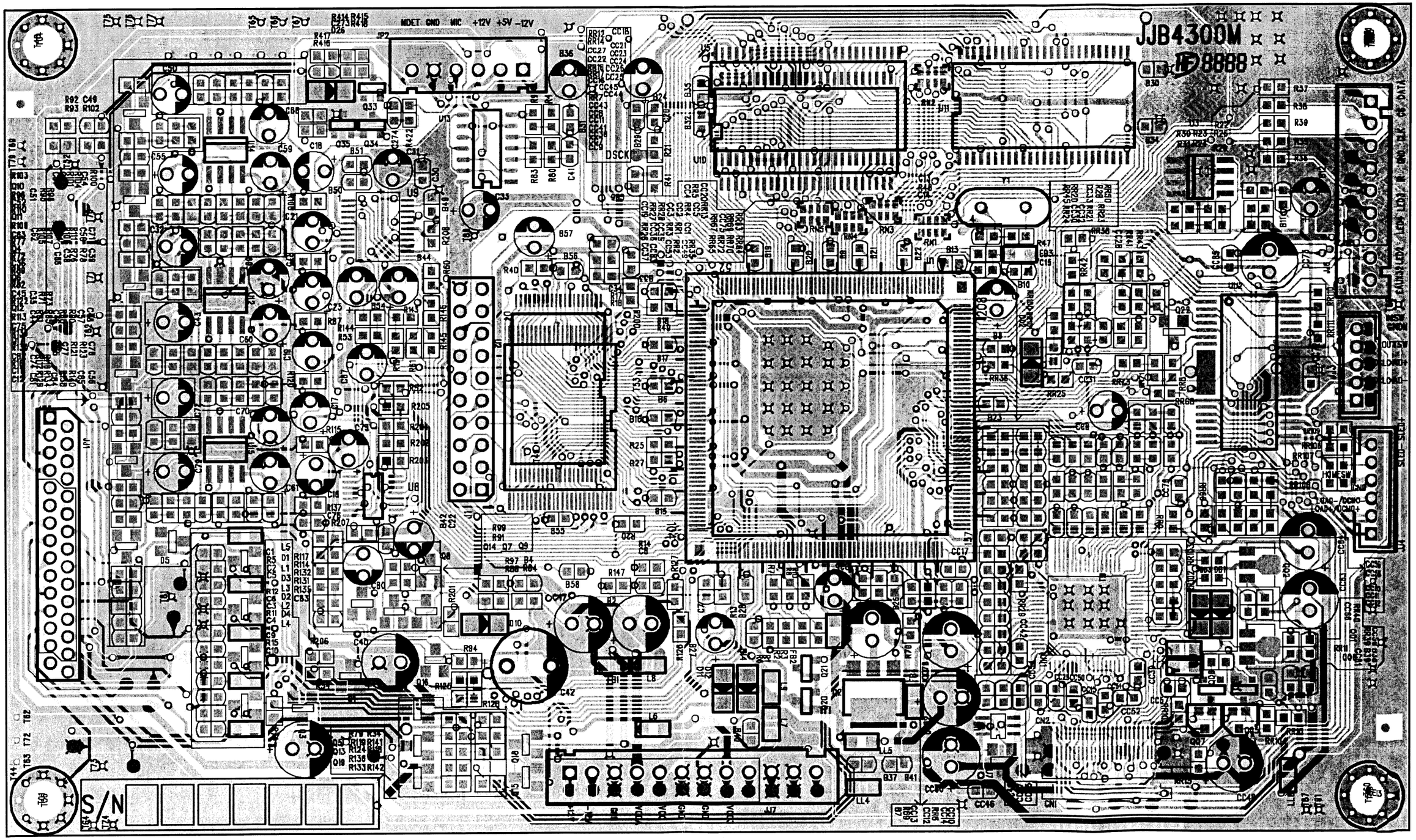
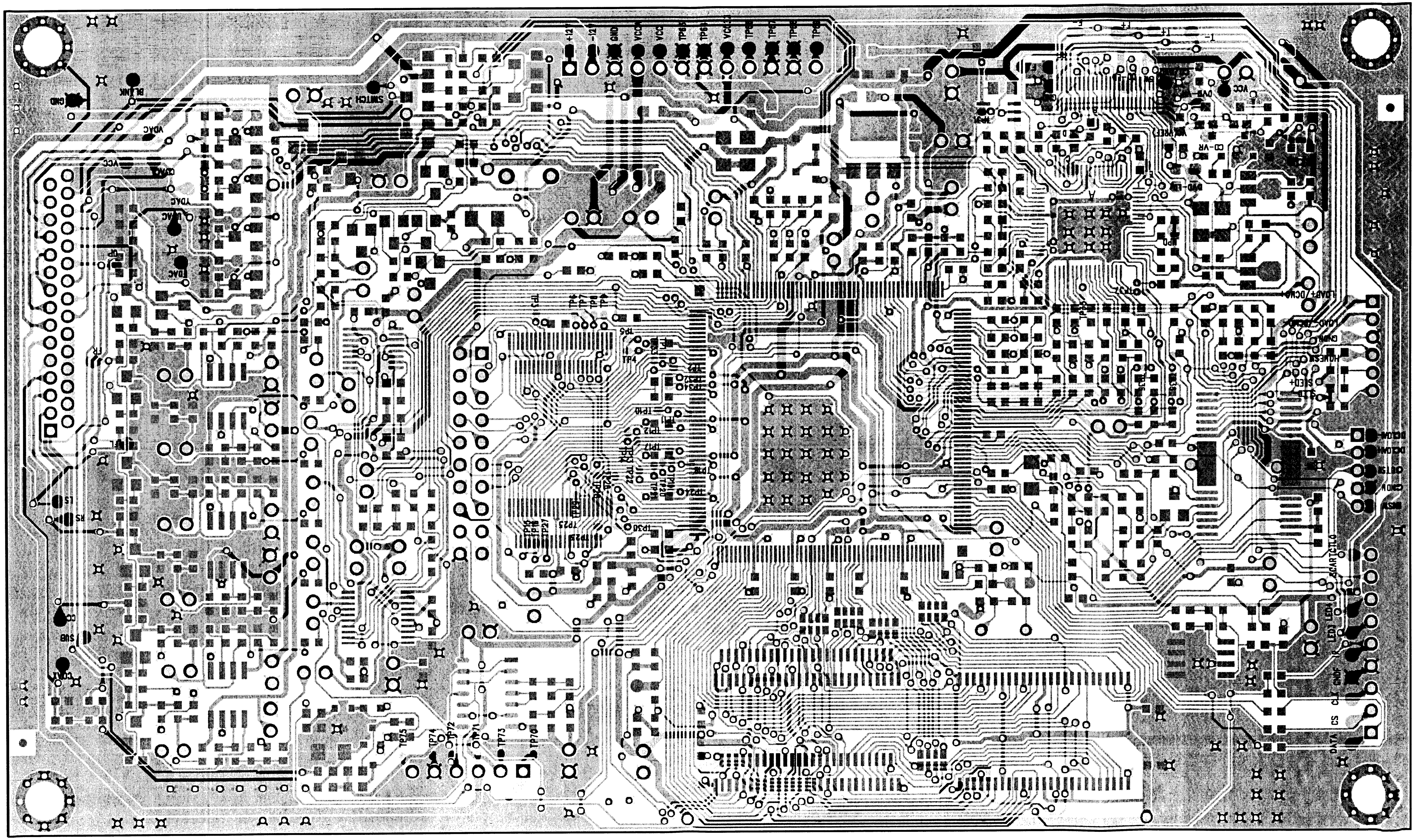

JJB4300P-1
COLD
HOT
CAUTION: ZA602 C604
FOR CONTINUED PROTECTION AGAINST
RISK OF FIRE REPLACE ONLY WITH
SAME TYPE T1.6AL 250V FUSE
REV:1 2004-06-29
+12V
-12V
GND
+5V
+5V
GND
GND
3.3V
+5V
SB
S5V
GND
F-
F+
-21V


T1
POWER SW
AC INPUT
FUSE
U601
VIP ER22A
U602
PC817
U603
TL431
F+
F-
-24V
-12V
+12V
+5V
GND
STAND BY5V
3.3V
STAND BY
only for standby


JJB4300M
MDET GND MIC +12V +5V -12V
DSCK
S/N


+12V
-12V
GND
VCC
CD-VR
TP73
TP74
TP75
TP76
SCARTCTLO
LED3
LED4
GNDF
CLK
CS
DATA

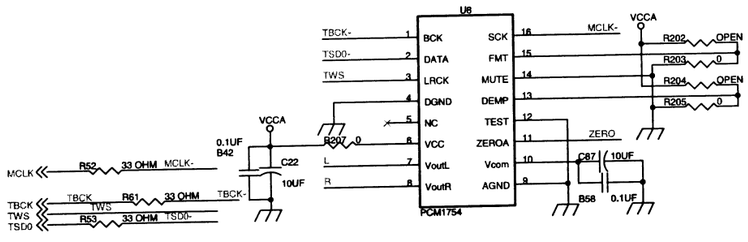
## VIDEO OUTPUT TABLE

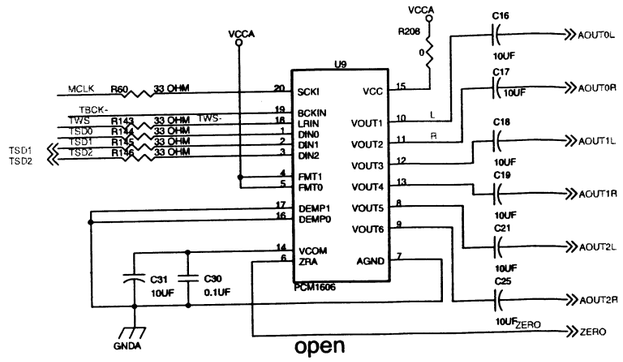
| | CVBS+S-VIDEO or CVBS+YUV | CVBS+YUV | S-VIDEO+RGB | CVBS+RGB |
|---|---|---|---|---|
| VDAC | CVBS | CVBS | Y | CVBS |
| UDAC | Y | Y | G | G |
| VDAC | V | V | R | R |
| UDAC | U | U | B | B |
| SDAC | C | CVBS | C | CVBS |

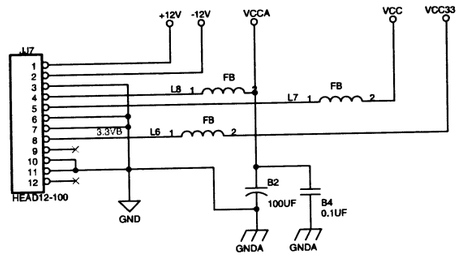
| PLL3 | CLK SOURCE |
|---|---|
| 1 | CRYSTAL |
| 0 | CRYSTAL OSC |

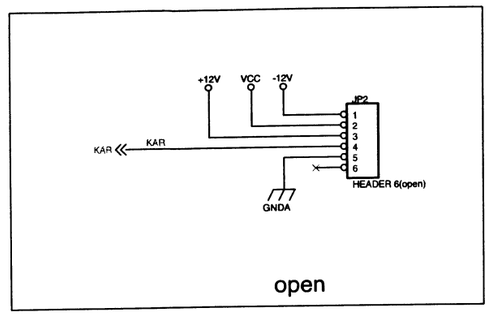
| Iz / á´ÁGá* | sanyo DV34 | SAMSUNG S71 |
|---|---|---|
| RR102,RR103 | 0 | 1K |
| RR104,RR105 | 0 | 10 |
| CC50,CC51 CC52,CC54 | 680PF | 2200PF |
| RR36 | 1K | NC |
| RR38 | NC | 10K |
| RR42 | 10K | 22K |
| RR100 | 0 | NC |
| RR101 | NC | 0 |
| CN1 | INSTALL | OPEN |
| CN2 | OPEN | INSTALL |
| RR106,RR108 | 0 | NC |
| RR107,RR109 | NC | 0 |
| RR110 | 0 | N C |
| RR111 | NC | 33 |
| RR41ÁáRR45 | 56K | 56K |
| RR20ÁáRR21 RR24 | 6.8K | 12K |
| RR23 | 5.1K | 12K |

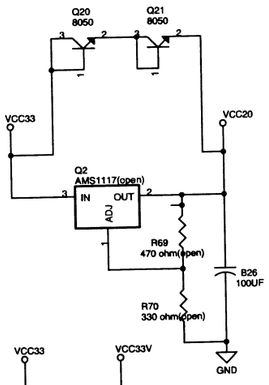
## BURR-BROWN 6-CHANNEL AUDIODAC

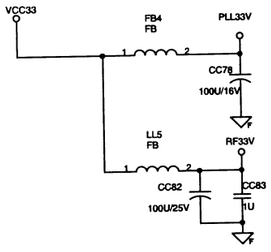


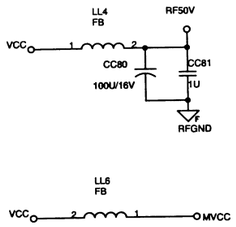



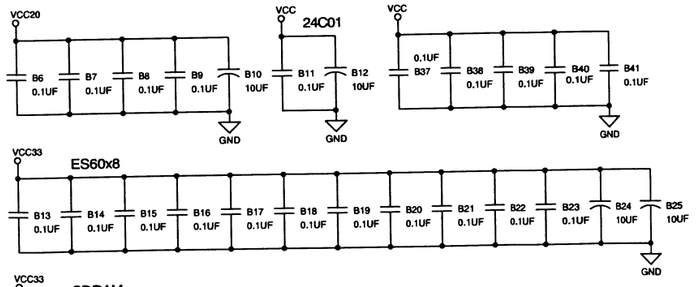



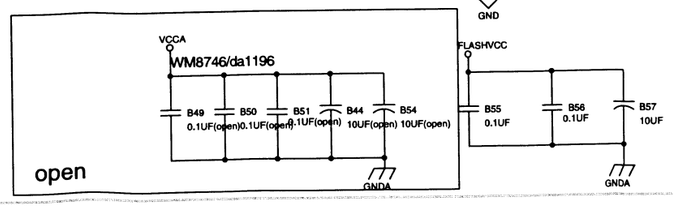



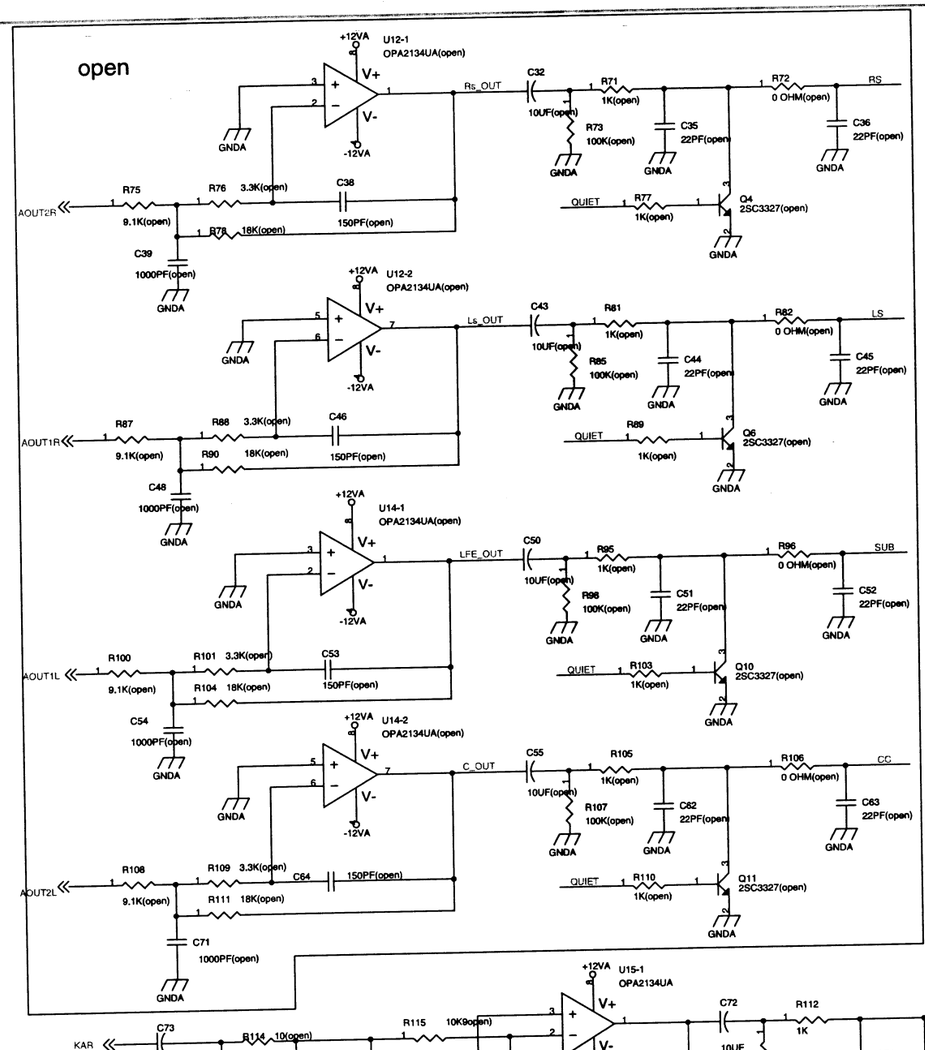



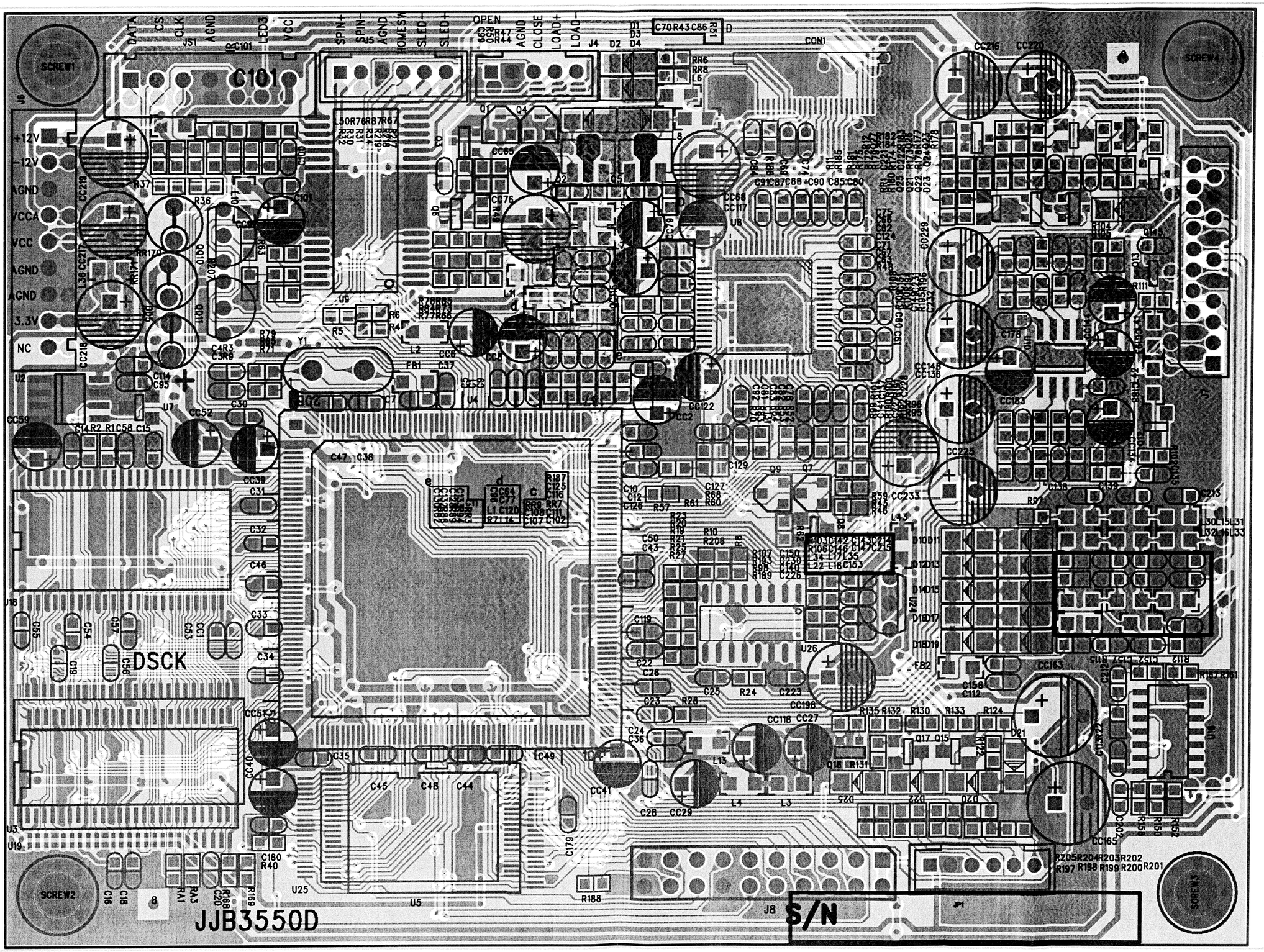




open
U12-1
OPA2134UA(open)
+12VA
-12VA
GNDA
Rs_OUT
RS
C32
10UF(open)
R71
1K(open)
R72
0 OHM(open)
R73
100K(open)
C35
22PF(open)
C36
22PF(open)
AOUT2R
R75
9.1K(open)
R76
3.3K(open)
C38
150PF(open)
R78
18K(open)
C39
1000PF(open)
QUIET
R77
1K(open)
Q4
2SC3327(open)
U12-2
OPA2134UA(open)
Ls_OUT
LS
C43
R81
R82
R85
C44
C45
AOUT1R
R87
R88
C46
R90
C48
Q6
U14-1
OPA2134UA(open)
LFE_OUT
SUB
C50
R95
R96
R98
C51
C52
AOUT1L
R100
R101
C53
R104
C54
R103
Q10
U14-2
OPA2134UA(open)
C_OUT
CC
C55
R105
R106
R107
C62
C63
AOUT2L
R108
R109
C64
R111
C71
R110
Q11
U15-1
OPA2134UA
KAR
C73
R114
10(open)
R115
10K9open)
R117
C76
C72
R112
R113
FR
C75
AOUT0R
R120
9.1K
R121
3.3K
C77
150PF
R123
18K
C78
1000PF
R116
100K
C74
22PF
R122
Q12
2SC3326
R125
470(open)
Q14
9014(open)
VCCA
R127
1K(open)
LED2
R128
Q16
U15-2
OPA2134UA
C80
R131
R132
10K(open)
R135
C83
22PF(open)
C79
R129
R130
FL
C82
AOUT0L
R137
9.1K
R138
3.3K
C84
150PF
R140
18K
C85
1000PF
R134
100K
C81
22PF
R139
Q17
2SC3326
Q3
8050
+12V
R74
150
C37
220uF/16V
Q5
8550
-12V
R79
150
C40
220uF/16V
-12VA
C42
470uF/25V
R84
47
VCC33
D11
IN4148
D10
IN4148
R86
100K
D12
IN4148
STANDBY
R91
2K
Q7
2N3906
C47
220uF/16V
QUIET
R94
100K
R97
150
Q8
2N3906
RESET#
VCCA
R206
4.7K(OPEN)
R99
2K
Q9
2N3906
Q1
2SC3326
R54
ZERO
1K
R201
4.7K(open)
VCC33
C56
0.1UF
C57
0.1UE(open)
C58
0.1UE(open)
C59
10UE(open)
C60
10UE(open)
C61
10UF
C65
0.1UF
C66
0.1UE(open)
C67
0.1UE(open)
C68
10UE(open)
C69
10UE(open)
C70
10UF
VCC
C33
10UF
C34
0.1UF
GND
R80
10M
SPDIF
C41
0.1UF
U13B
U13C
U13D
U13A
U13E
U13F
7404
R83
1M
COAX
R92
C49
33 OHM
0.1UF
R93
91 OHM
OP
R102
68 OHM
JU1
20PIN
FR
FL
CVBS
VDAC
YDAC
CDAC
UDAC
SWITCH
BLANK
FDAC
R118
2.2K
R119
75
R124
1K
Q13
3906
SCARTCTL2
R126
1K
Q15
3904
0V——CVBS
3V——RGB
R133
2.2K
0V——TV
6V——AV 16:9
12V——AV 4:3
R136
1.2K
C273
39NF(open)
R414
1M2(open)
R415
100K(open)
D26
IN4148(open)
Q33
2N3904(open)
Q34
2N3904(open)
R418
10K(open)
C274
1NF(open)
LED3
led4
R141
1K
R142
1K
Q18
3904
Q19
3904
R422
33 OHM(open)
AUX7
R416
10K(open)
IRDL
R417
10K(open)
Q35
8550(open)


DATA
CS
CLK
AGND
LED3
VCC
SPIN+
SPIN-
AGND
HOMESW
SLED-
SLED+
OPEN
AGND
CLOSE
LOAD+
LOAD-
CON1
SCREW1
SCREW4
SCREW2
SCREW3
J6
+12V
-12V
AGND
VCCA
VCC
AGND
AGND
3.3V
NC
C101
DSCK
JJB3550D
J8
S/N
JP1

# ES6826

EM-MARIN RESET IC

U7 EM6353 (VCC, GND, RESET)

U2 AT24C01A-10TC-2.7(OPEN) (S0, S1, S2, GND, VCC, WC, SCL, SDA)

U18 SDRAM 512KX16X2 (7ns)(open)

U19 SDRAM 512KX16X2 (7ns)(open)

U3 4Mx16 SDRAM (7ns) — 64MBIT SDRAM

U4 ES6826

U5 29LV800BE-90(open)

U25 TSOP40:512KX8,1MX8

ES6620

OSC, RESET, TTL, PLL

SDRAM, FLASH, ETC.

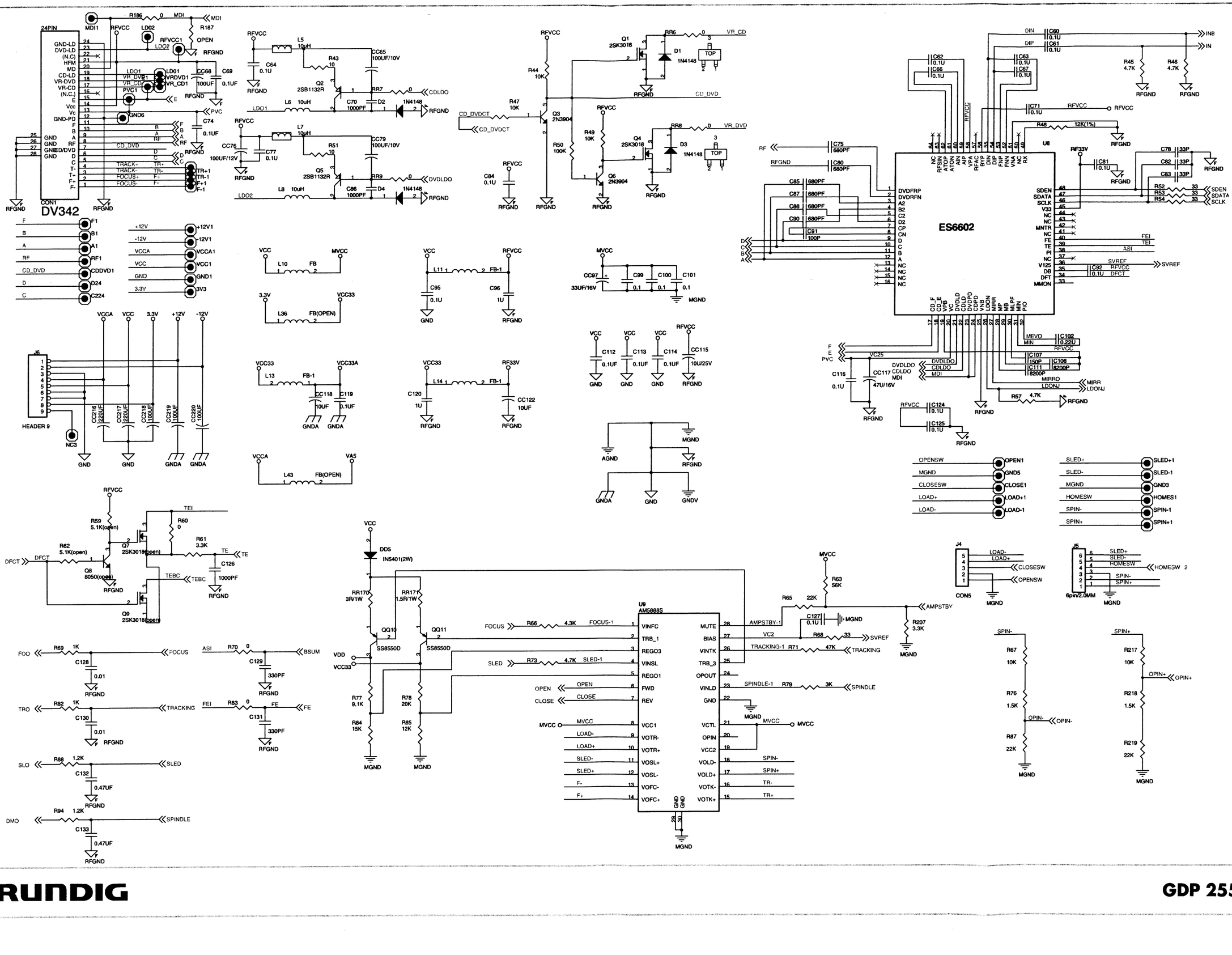
CON20A(OPEN)

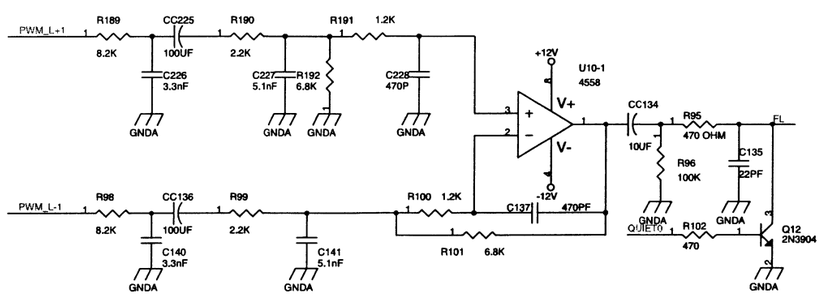
HEADER 6

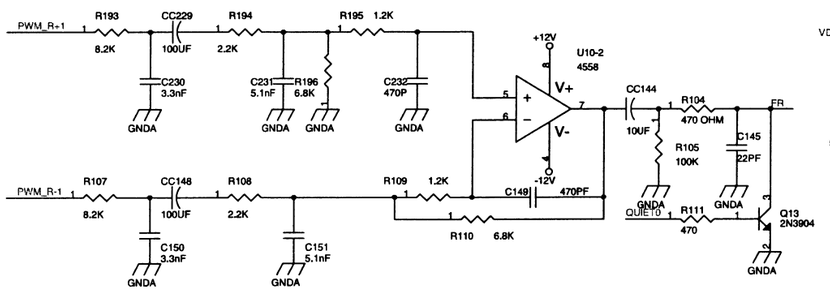
HEADER 7 VFD

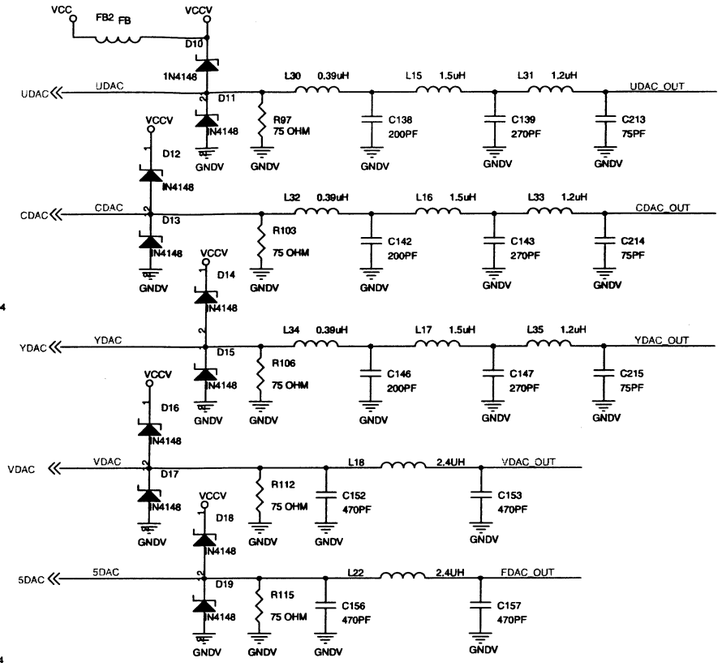
| PLL3 | CLK SOURCE |
|---|---|
| 0 | CRYSTAL OSC |
| 1 | DCLK INPUT |

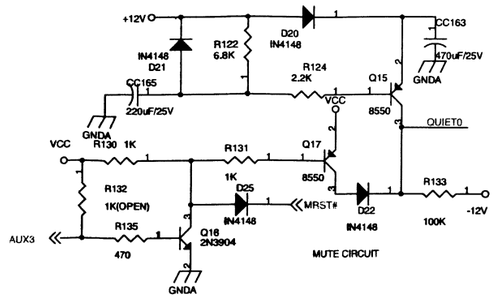
| PLL2 | PLL1 | PLL0 | MULT S-CHIP | FREQUENC S-CHIP |
|---|---|---|---|---|
| 0 | 0 | 0 | 4.5X | 121.5 |
| 0 | 0 | 1 | 5.0X | 135 |
| 0 | 1 | 0 | BYPASS | N/A |
| 0 | 1 | 1 | 4.0X | 108 |
| 1 | 0 | 0 | 4.25X | 114.75 |
| 1 | 0 | 1 | 4.75X | 128.25 |
| 1 | 1 | 0 | 5.5X | 148.5 |
| 1 | 1 | 1 | 6.0X | 162 |

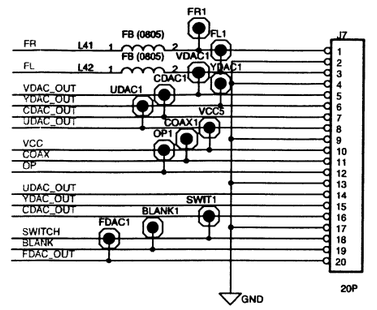

DV342
24PIN
CON1
ES6602
U8
U9
AM5888S
RFVCC
RFGND
MVCC
MGND
AGND
GNDA
GNDV
VCC
VCCA
VCC33
VA5
3.3V
+12V
-12V
RF33V
HEADER 9
J6
J4
J5
CON5
6pin/2.0MM
DFCT
TEI
TEBC
TE
FOO
TRO
SLO
DMO
FEI
ASI
BSUM
FOCUS
TRACKING
SLED
SPINDLE
FE
SVREF
AMPSTBY
OPENSW
CLOSESW
LOAD+
LOAD-
SLED+
SLED-
HOMESW
SPIN+
SPIN-
OPIN+
OPIN-
VR_CD
VR_DVD
CD_DVD
CD_DVDCT
CDLDO
DVDLDO
MDI
INB
IN
SDEN
SDATA
SCLK
FEI
TEI
ASI
SVREF
MEVO
MIRRO
LDONJ
OPEN1
GND5
CLOSE1
LOAD+1
LOAD-1
SLED+1
SLED-1
GND3
HOMES1
SPIN-1
SPIN+1

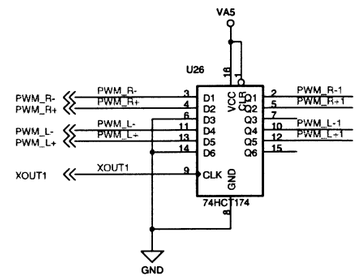

PWM_L+1
R189 8.2K
CC225 100UF
C226 3.3nF
R190 2.2K
C227 5.1nF
R191 1.2K
R192 6.8K
C228 470P
GNDA
+12V
U10-1
4558
V+
V-
-12V
CC134 10UF
R95 470 OHM
R96 100K
C135 22PF
FL
PWM_L-1
R98 8.2K
CC136 100UF
C140 3.3nF
R99 2.2K
C141 5.1nF
R100 1.2K
C137 470PF
R101 6.8K
R102 470
QUIET0
Q12 2N3904

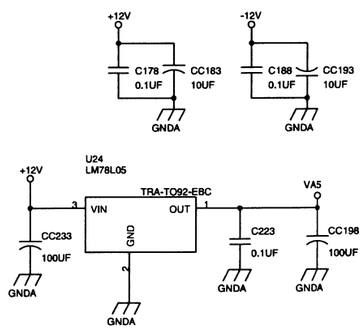

PWM_R+1
R193 8.2K
CC229 100UF
C230 3.3nF
R194 2.2K
C231 5.1nF
R195 1.2K
R196 6.8K
C232 470P
GNDA
+12V
U10-2
4558
V+
V-
-12V
CC144 10UF
R104 470 OHM
R105 100K
C145 22PF
FR
PWM_R-1
R107 8.2K
CC148 100UF
C150 3.3nF
R108 2.2K
C151 5.1nF
R109 1.2K
C149 470PF
R110 6.8K
R111 470
QUIET0
Q13 2N3904

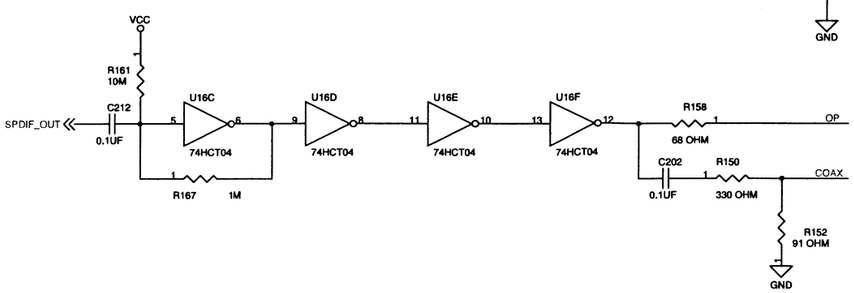

VCC
FB2 FB
VCCV
D10
1N4148
UDAC
D11
L30 0.39uH
L15 1.5uH
L31 1.2uH
UDAC_OUT
R97 75 OHM
C138 200PF
C139 270PF
C213 75PF
D12
CDAC
D13
L32 0.39uH
L16 1.5uH
L33 1.2uH
CDAC_OUT
R103 75 OHM
C142 200PF
C143 270PF
C214 75PF
D14
YDAC
D15
L34 0.39uH
L17 1.5uH
L35 1.2uH
YDAC_OUT
R106 75 OHM
C146 200PF
C147 270PF
C215 75PF
D16
VDAC
D17
L18 2.4UH
VDAC_OUT
R112 75 OHM
C152 470PF
C153 470PF
D18
5DAC
D19
L22 2.4UH
FDAC_OUT
R115 75 OHM
C156 470PF
C157 470PF
GNDV

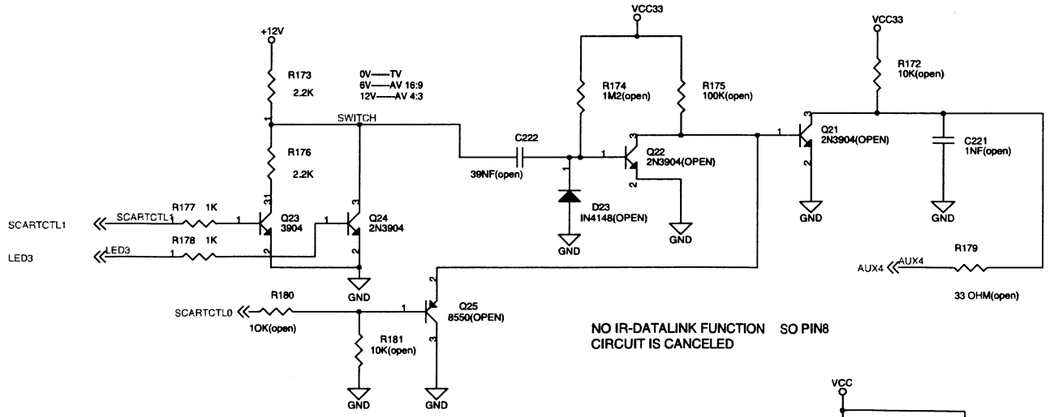

+12V
D20 IN4148
CC163 470uF/25V
IN4148 D21
R122 6.8K
R124 2.2K
Q15 8550
CC165 220uF/25V
GNDA
VCC
QUIET0
R130 1K
R131 1K
Q17 8550
R132 1K(OPEN)
D25 IN4148
MRST#
D22 IN4148
R133 100K
-12V
AUX3
R135 470
Q18 2N3904
MUTE CIRCUIT

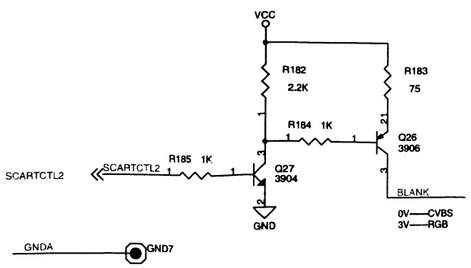

FR1
FB (0805)
FL1
FR
L41
FL
L42
VDAC1
YDAC1
CDAC1
UDAC1
VDAC_OUT
YDAC_OUT
CDAC_OUT
UDAC_OUT
VCC5
COAX1
OP1
VCC
COAX
OP
SWIT1
BLANK1
FDAC1
SWITCH
BLANK
FDAC_OUT
J7
20P
GND

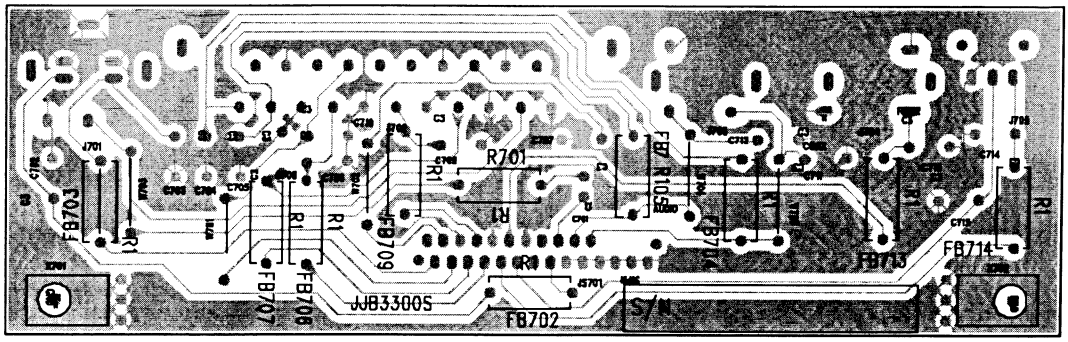

VA5
U26
PWM_R-
PWM_R+
PWM_L-
PWM_L+
XOUT1
D1
D2
D3
D4
D5
D6
CLK
VCC
GND
Q1
Q2
Q3
Q4
Q5
Q6
PWM_R-1
PWM_R+1
PWM_L-1
PWM_L+1
74HCT174
GND

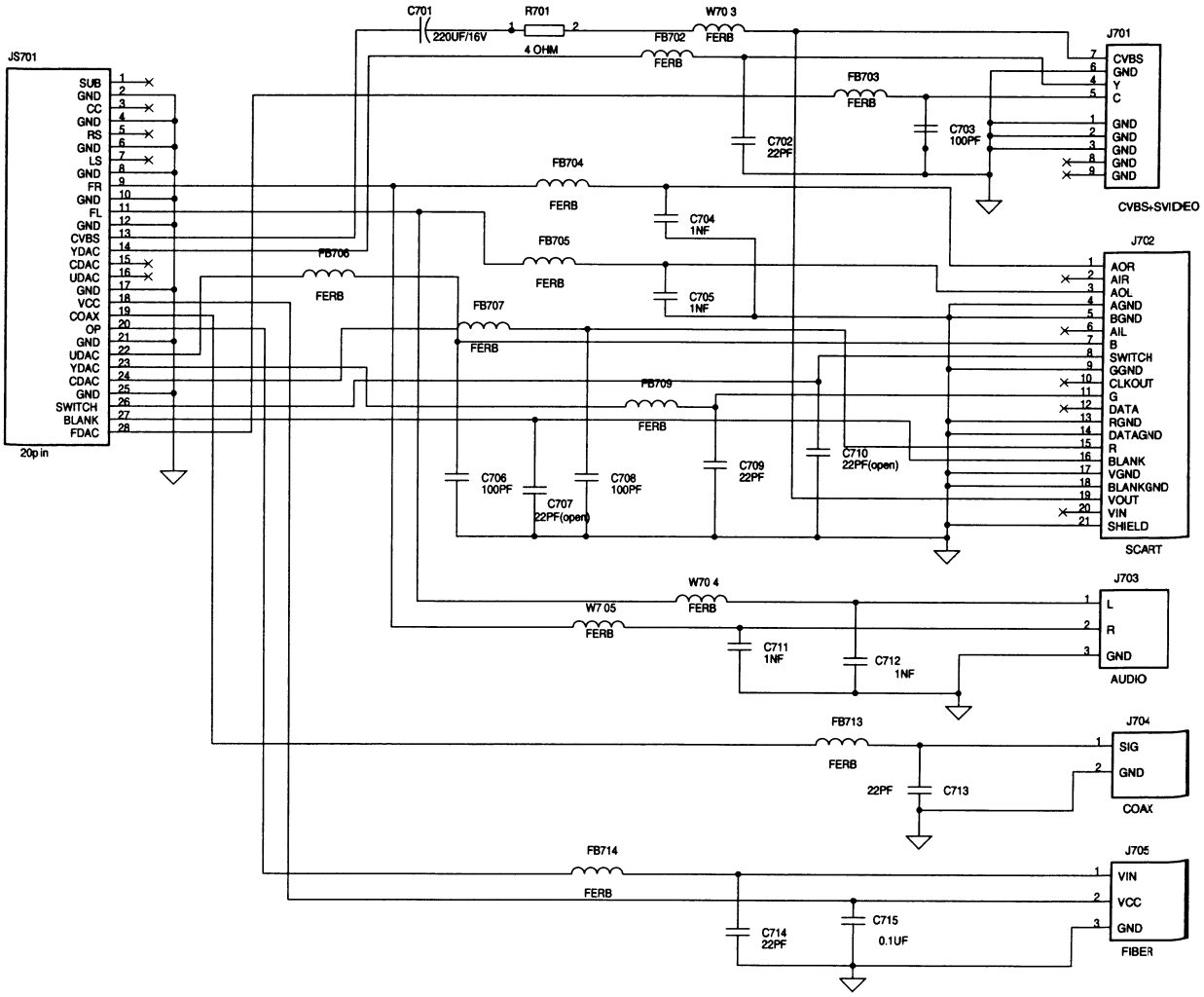

+12V
-12V
C178 0.1UF
CC183 10UF
C188 0.1UF
CC193 10UF
GNDA
U24
LM78L05
TRA-TO92-EBC
VIN
OUT
GND
CC233 100UF
C223 0.1UF
CC198 100UF
VA5

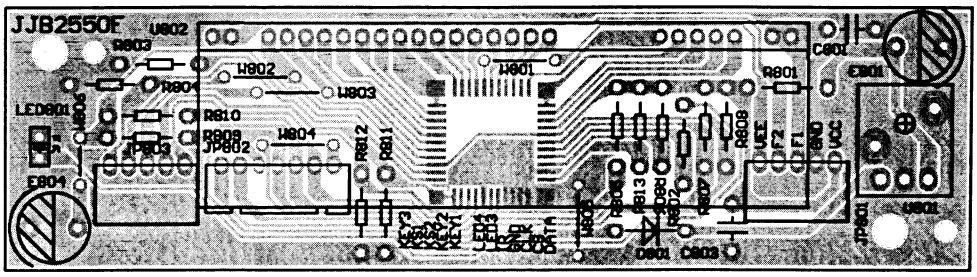

VCC
R161 10M
SPDIF_OUT
C212 0.1UF
U16C
U16D
U16E
U16F
74HCT04
R167 1M
R158 68 OHM
OP
C202 0.1UF
R150 330 OHM
COAX
R152 91 OHM
GND

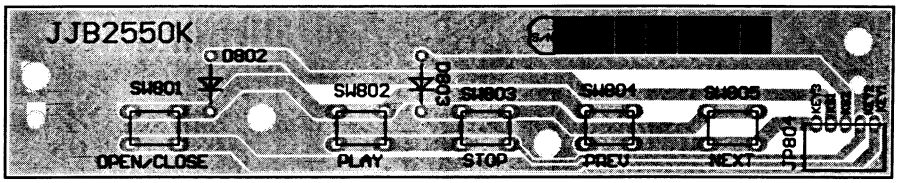

+12V
R173 2.2K
0V——TV
6V——AV 16:9
12V——AV 4:3
SWITCH
R176 2.2K
C222 39NF(open)
SCARTCTL1
R177 1K
Q23 3904
Q24 2N3904
LED3
R178 1K
SCARTCTL0
R180 10K(open)
Q25 8550(OPEN)
R181 10K(open)
VCC33
R174 1M2(open)
R175 100K(open)
Q22 2N3904(OPEN)
D23 IN4148(OPEN)
Q21 2N3904(OPEN)
R172 10K(open)
C221 1NF(open)
AUX4
R179 33 OHM(open)
GND
NO IR-DATALINK FUNCTION SO PIN8
CIRCUIT IS CANCELED

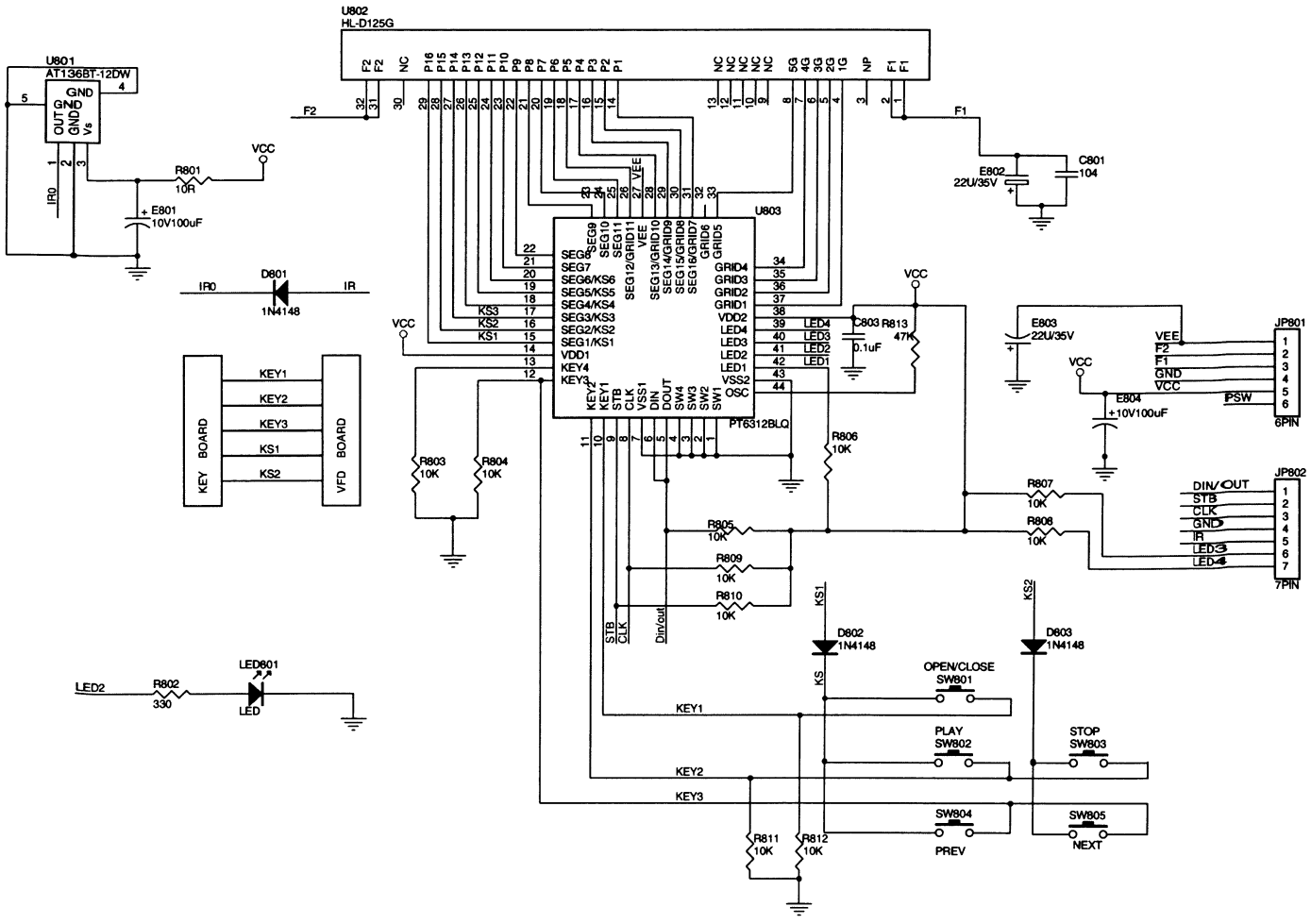

VCC
R182 2.2K
R183 75
R184 1K
Q26 3906
SCARTCTL2
R185 1K
Q27 3904
BLANK
0V——CVBS
3V——RGB
GNDA
GND7
GND


R701
FB702
FB713
FB714
J701
JJB3300S
S/N


JS701
SUB
GND
CC
GND
RS
GND
LS
GND
FR
GND
FL
GND
CVBS
YDAC
CDAC
UDAC
GND
VCC
COAX
OP
GND
UDAC
YDAC
CDAC
GND
SWITCH
BLANK
FDAC
20p in
C701
220UF/16V
R701
4 OHM
W70 3
FB702
FERB
FB703
C702
22PF
C703
100PF
J701
CVBS
GND
Y
C
GND
GND
GND
GND
GND
CVBS+SVIDEO
FB704
C704
1NF
FB705
C705
1NF
FB706
FB707
FB709
C706
100PF
C707
22PF(open)
C708
100PF
C709
22PF
C710
22PF(open)
J702
AOR
AIR
AOL
AGND
BGND
AIL
B
SWITCH
GGND
CLKOUT
G
DATA
RGND
DATAGND
R
BLANK
VGND
BLANKGND
VOUT
VIN
SHIELD
SCART
W70 4
W7 05
C711
1NF
C712
1NF
J703
L
R
GND
AUDIO
FB713
C713
22PF
J704
SIG
GND
COAX
FB714
C714
22PF
C715
0.1UF
J705
VIN
VCC
GND
FIBER


JJB2550F
U802
R803
R804
LED801
R810
R809
JP803
JP802
U804
R812
R811
U801
U803
C801
E801
R801
D801
C803
R808
VEE
F2
F1
GND
VCC
JP801


JJB2550K
D802
SW801
SW802
SW803
SW804
SW805
OPEN/CLOSE
PLAY
STOP
PREV
NEXT
JP804


U802
HL-D125G
U801
AT1368T-12DW
GND
OUT
Vs
IR0
R801
10R
VCC
E801
10V100uF
D801
1N4148
IR
KEY BOARD
KEY1
KEY2
KEY3
KS1
KS2
VFD BOARD
U803
PT6312BLQ
R803
10K
R804
10K
R806
10K
R807
10K
R808
10K
R805
10K
R809
10K
R810
10K
C803
0.1uF
R813
47K
E802
22U/35V
C801
104
E803
22U/35V
E804
+10V100uF
JP801
6PIN
JP802
7PIN
DIN/OUT
STB
CLK
GND
IR
LED3
LED4
PSW
LED801
LED2
R802
330
LED
D802
1N4148
D803
1N4148
OPEN/CLOSE
SW801
PLAY
SW802
STOP
SW803
SW804
PREV
SW805
NEXT
R811
10K
R812
10K

GRUNDIG

# Ersatzteilliste
# Spare Parts List

# DVD

## 6 / 2005

## GDP 2550

MATERIAL-NR. / PART NO.: 774010925100
BESTELL-NR. / ORDER NO.: GMK3900

| POS. NR. POS. NO. | ABB. FIG. | MATERIAL-NR. PART NUMBER | ANZ. QTY. | BEZEICHNUNG (D) | DESCRIPTION (GB) |
|---|---|---|---|---|---|
| | | 774010925100 | | GDP 2550<br>**TAUSCHGERAET** | GDP 2550<br>**EXCHANGE SET** |
| 0001.000 | | 296420660200 | | TP 81 D FERNBEDIENUNG (GRAU) | TP 81 D REMOTE CONTROL (GREY) |
| 0002.000 | ⚠ | 759813267700 | | NETZKABEL | POWER CABLE |
| | | 759551193300 | | KARTON | CARTON |
| | | 720116045500 | | BEDIENUNGSANLEITUNG D/GB | INSTRUCTION MANUAL D/GB |
| | | 720116053000 | | BEDIENUNGSANLEITUNG PL/GB | INSTRUCTION MANUAL PL/GB |
| | | 720116053100 | | BEDIENUNGSANLEITUNG D/F/I | INSTRUCTION MANUAL D/F/I |

Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Mat.-Nummer 720108000001, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!

⚠ (!)

The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 720108000001, as well as the respective national deviations.

ÄNDERUNGEN VORBEHALTEN / SUBJECT TO ALTERATION